AMBLYSEIUS SIMILOIDES, A NEW PREDACIOUS MITE FROM CALIFORNIA

(Acarina: Phytoseiidae)

T. C. BUCHELOS AND A. EARL PRITCHARD
University of California, Berkeley

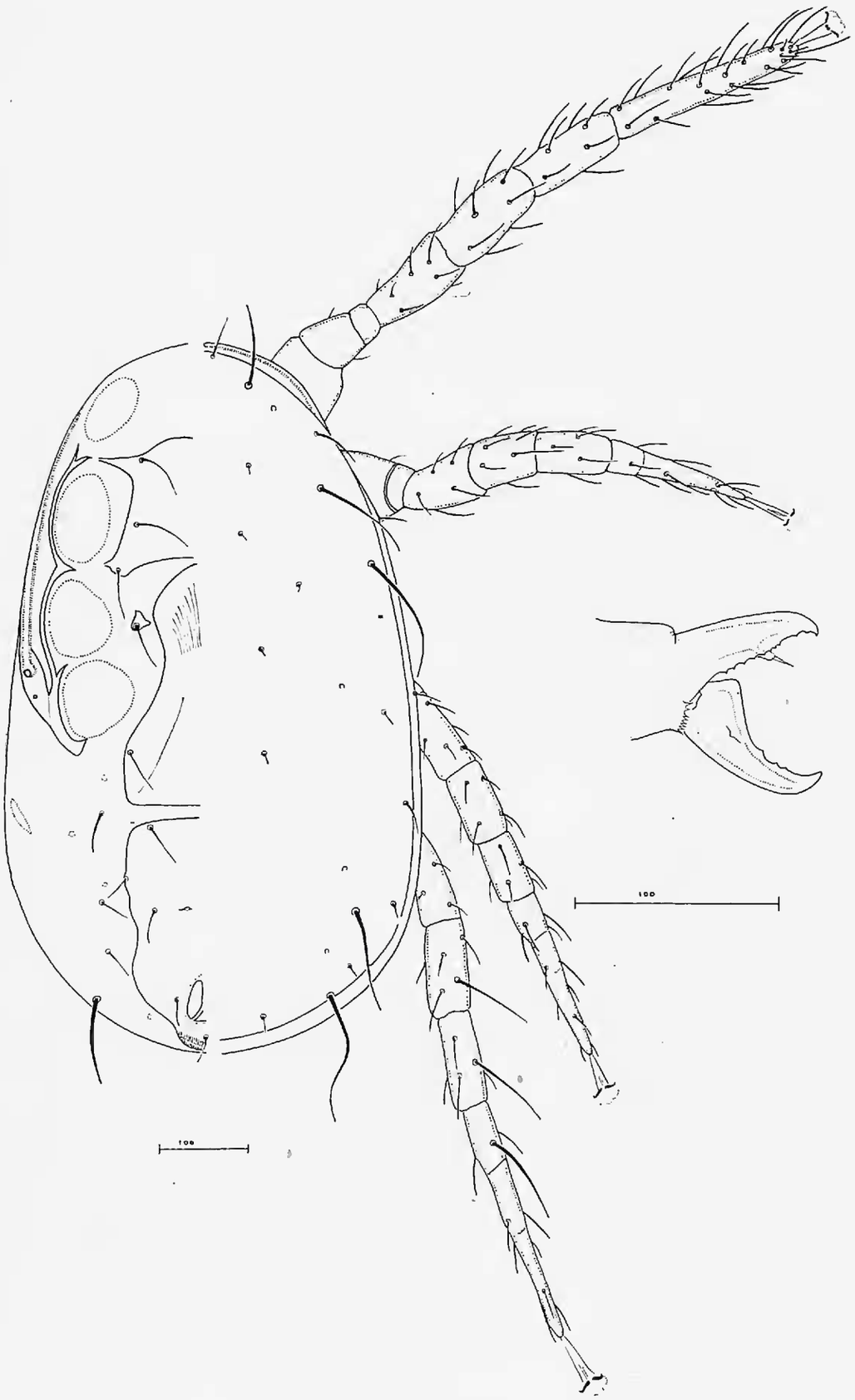
Amblyseius similis (Koch) is a name currently applied to a phytoseiid mite that is common in Europe. This name also has been applied to a similar mite that is common in California (Chant, 1960), but this species is certainly distinct from the description of *A. similis* given by Dosse (1958) from Germany. A name is needed in connection with the publication of biological studies of the California species, and it is here described.

Amblyseius similoides Buchelos and Pritchard, new species

Amblyseius similoides resembles *A. similis* in that the first and fourth lateral setae are long, with the second lateral seta shorter than the third; the fifth lateral seta is shorter than the sixth; and there are four pairs of dorsocentral setae in addition to the vertical setae. However, in *A. similoides* the spermatheca bears a very slender cervix in contrast to the broadly cup-shaped cervix of *A. similis*.

Female (Fig. 1).—Chelicera with chelae moderately developed, the movable digit with several fine teeth and the fixed digit multidentate. Dorsal shield smooth, with five pairs of pores; vertical setae moderately developed and second lateral similar in length, the third lateral longer, and the first and fourth laterals still longer: fifth, seventh, and eighth laterals very small, the sixth lateral definitely longer; ninth lateral very long, smooth; four pairs of dorsocentrals and anterior mediolaterals all very small; posterior mediolaterals long. Peritremes reaching vertical setae. Ventri-anal plate slender, the pre-anal portion longer than broad and similar in width to epigynial plate; three pairs of widely separated pre-anal setae and a pair of transverse pores between caudal pair; three pairs of para-anal setae; two pairs of slender metapodal platelets, the anterior pair much smaller. Sternal plate broader than long, the metasternal platelets separate. Spermatheca (Fig. 2) with cervix longer than broad at base, narrowing to the sharply bent atrium. Genu IV with a stout, pointed macroseta and six short setae; tibia IV with a stout, pointed macroseta and five short setae; basitarsus IV with a stout, pointed macroseta and three short setae. Lenth of idiosoma 432μ; greatest width of body 270μ.

Male (Fig. 3)—Spermatodactyl with shaft slender, the distal portion abruptly bent, bearing a slight protuberance at the bend, and tapering somewhat to a slightly widened apex. Dorsal shield with chaetotaxy similar to female. Ventri-anal plate with three pairs of widely separated setae and a



EXPLANATION OF FIGURES

Fig. 1, dorsal and ventral aspects of female of *Amblyseius similoides*, with enlargement of chelae.

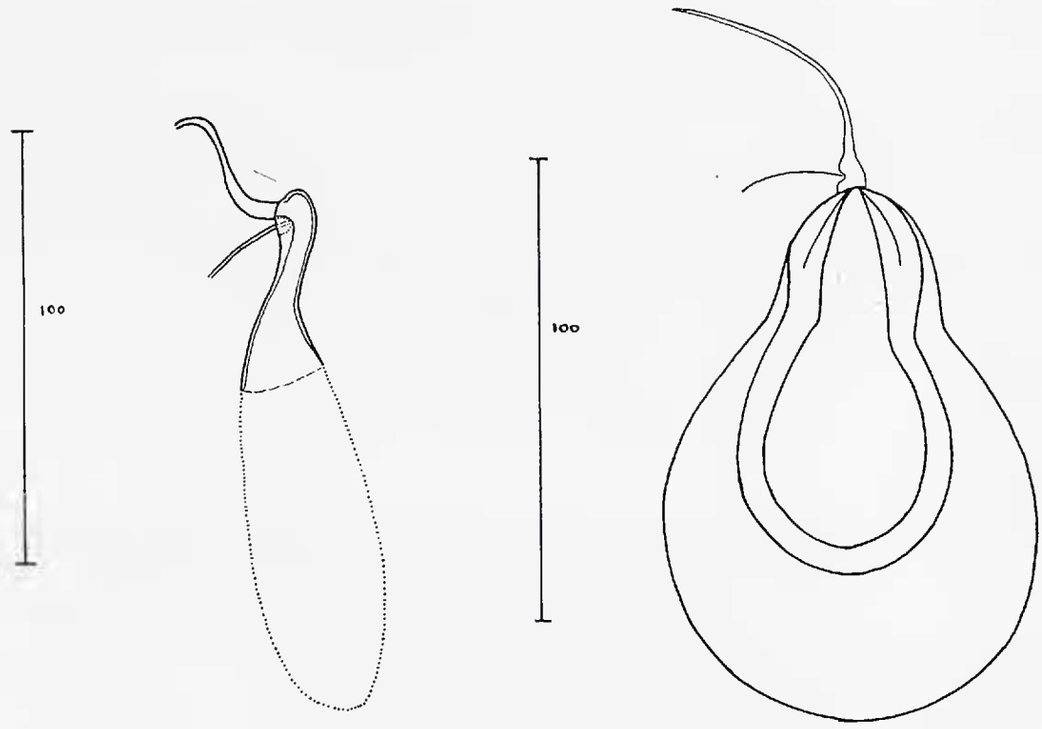


Fig. 2, left: spermatheca of *Amblyseius similoides;* right: spermatheca of *A. similis* (after Dosse).

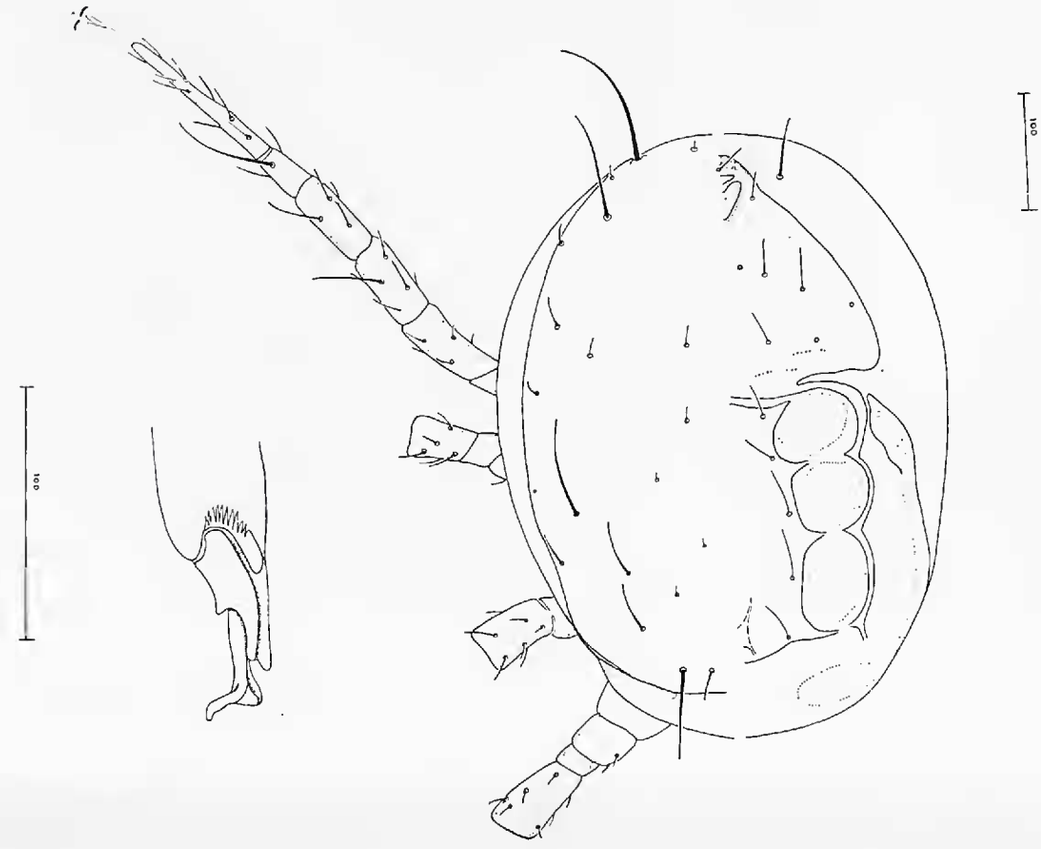


Fig. 3, dorsal and ventral aspects of male of *Amblyseius similoides,* with enlargement of spermatodactyl.

pair of pores between and just posterior to caudomedian pair of setae. Length of idiosoma 302μ; greatest width of body 194μ.

Holotype female, REDWOOD CITY, SAN MATEO COUNTY, CALIFORNIA, September 2, 1957 (R. O. Schuster), on walnut; type No. 2728 in the U.S. National Museum.

Paratypes.—Forty-five females, 27 males, Redwood City, California, September 2 , 1957 (R. O. Schuster), on walnut.

LITERATURE CITED

CHANT, D. A.

1960. Phytoseiid mites (Acarina: Phytoseiidae). Canadian Entomologist, 89 (supp. 12): 1–166.

DOSSE, GUDO

1958. Die Spermathecae, ein zusätzliches Bestimmungsmerkmal bei Raubmilben (Acar., Phytoseiidae). Pflanzenschutz-Berichte, 20 (Heft 1/2): 1–11.

BUTTERFLIES OF NORTH DAKOTA, by D. Lovell Puckering and Richard L. Post. North Dakota Agricultural College, Fargo, North Dakota. 56 pages (not numbered consecutively), text figs. Paper, $1.50. Published May 23, 1960.

This booklet treats the 91 species of Papilionoidea known for the area with a key and gives a short diagnosis, foodplant information, and distributional data for each. The work is primarily that of Mr. Puckering, a graduate student at North Dakota Agricultural College, and is based on activities of the North Dakota Insect Survey, supplemented by local private collections.

Although they include an annoying number of misspellings, the keys appear to be very useful, since they include black and white photographs of both upper and lower wing surfaces of each species figured on the same page with the couplet concerned. The authors were fortunate in securing the cooperation of a number of specialists, and they have used the numerical and nomenclatorial systems of the perennially delayed dos Passos Checklist. Therefore, the most recent name combinations are used, but evidently several new combinations are thus proposed in a taxonomic publication of limited distribution.

In general very little data are available about the distribution of insects in North Dakota, and this publication offers detailed information on the butterflies of the area, together with a short essay on the major physiographic elements affecting distributional patterns. Some interesting aspects of the transition or overlap zone between eastern and western entities in several species groups (*e.g.*, the *Papilio glaucus-rutulus* complex) are brought out. In addition, range extensions for a number of species are given.

The book will be of value to collectors in the northern midwest area, to students of butterfly systematics, and to persons interested in insect distribution in North Dakota and the relationship of the fauna of that area to other parts of North America.—JERRY A. POWELL, *University of California, Berkeley.*